

# NOVA

NEWSLETTER OF THE VANCOUVER CENTRE RASC | VOLUME 2007 ISSUE 2 | MARCH/APRIL 2007

Astronomy... in Costa Rica	1
CGRT Report	2
Membership... Priviledges	2
President's Message	3
Observing Sites	4
Upcoming Events	6
CAROp Observers' Group	7

## Looking Ahead

Remember, you are always welcome to attend meetings of Council, held on the first Thursday of every month at 7:30pm in the GMSO.

**Mar. 8:** RASC-VC member John Chapman: Development and Operation of a Surface Mine in a Remote Location - South Polar Region of the Moon.

**Apr. 12:** Dr. Dennis Danielson of the UBC English Dept. discusses his new book, *The First Copernican*.

## Next Issue Deadline

Material for the May Nova should be submitted by Monday, Apr. 30, 2007. Please send submissions to:

Gordon Farrell (gfarrell@shaw.ca)

## Astronomy and Other Adventures in Costa Rica

by Ron Jerome

"Que linda! (How beautiful!)" exclaimed a nine year old Costa Rican boy as he stared at the moon through my 80mm refractor. His sentiments were echoed in turn by eight other family members all gathered under a clear sky to enjoy one of the most interesting sights of the evening. The moon was well shy of its first half so the crater details were marvellously sharp along the terminator. "What do you call those 'holes' in Spanish?" I asked to no one in particular. "Huecos," came the reply. Later I discovered that, indeed, that was the word for "holes" but "crater" is the same word in both languages.

Anne and I had just begun our third week of Spanish immersion and were now living with a family just outside the small pueblito of Dominical on the west coast of Costa Rica. The "family farm" on which we were staying encompassed 1400 hectares that stretched from the nearby road down to the beach. A dozen smallish homes were scattered among the palm trees and the lush vegetation bordering the Pacific Ocean.

We had visited Costa Rica last year and concluded that, like chocolate, more would be better. We wanted to take Spanish lessons and to stay with families for a month before striking out on our own. We were now one third of the way into our adventure.

Our Tica family were most intrigued with the telescope and we spent a good hour moving about the sky. Overhead was my old friend, Orion, with his two canine companions and to the west a lot of stars with which I was not familiar. I had purchased a copy of Sky & Tel's new *Pocket Sky Atlas* before leaving home and photocopied what I hoped would be the relevant pages. I was quickly able to identify Canopus and I began searching eagerly for the Magellanic Clouds and for the Southern Cross. Unfortunately my view was hindered by the orientation of the farm. A large mountain of rock lay just off the beach and, while it provided a nice shelter from incoming storms, it did interfere with the western horizon. Still, the overhead sky was really dark and it was possible to pick

continued on page 6

We've had a lot of bad weather to contend with in New Mexico over the last several months. Hopefully we're on a clearing trend now.

Chris, Pomponia and myself have been able to bring the operations procedures to a point where we can start training operators. We'd like members who wish to learn how to use the scope to come to our regular Tuesday night meetings held at the CGRT Control Room at the GMSO. These meetings start at 7:30 (weather in New Mexico permitting). If a meeting is cancelled, notice is sent out to members of the CGRT Groups on Yahoo and the RASCVAN web site.

The last of the big stumbling blocks was a shutter error that we could not get rid of from the Control Room. This was a COM Port conflict that required a power off reboot of the remote computer. We can now perform this operation from the CGRT Computer and the instructions have been incorporated into the procedure's 'what if' file.

Further items of progress are the use of an FTP server to automatically download images from the CGRT computer. This transfer

runs automatically during the day when internet traffic to New Mexico Skies is not as heavy. The Canadian Astronomical Data Centre has access to the FTP server and can copy images from there to our repository at the CADC. Members will be able to access the images over the internet using the CADC's web based interface. All we need is some members to acquire some images.

On the horizon we are contemplating a move of the CGRT Control Room to SFU. We would have a secure office within the Burnaby Campus' Physics department and the ability to set up a local FTP server through them. This would put our server on the '.ca' network rather than the very busy '.com' one. This makes transfer of data a lot faster and having our own FTP server allows us to have more space at considerably less cost. These plans are in the development stage as is the relocation of the CAROP telescope and possibly bringing the CGRT scope to Canada. Chris has suggested that he could set up another scope at New Mexico Skies and mentioned he just happens to have a Takahashi Mewlon 300 that would

fit the bill nicely. Since he already has a spare camera and filter wheel the only thing he'd have to do is acquire another Paramount MME. This change would allow moving the scope from the 15' Technical Innovations Dome (which has been giving us problems) up to the roof of one of the SFU buildings. The new scope would be set up in one of the two pods with roll off roofs at NMS. The pods tend to be open more than the domes so we would get more time using the scope if it were there. Not only this, but we would save some money on rent. We will be sending the SFU Physics department a proposal by the end of the month that will have a number of options for them to consider. The anticipated move to the Burnaby Campus fits in well with their long range plans to build an Observatory on top of the mountain.

Keep watching the CGRT news as we are constantly trying to improve things for our membership and remember, if you want to learn all about imaging and go-to scope operation then the CGRT Group is for you! ✨

## Membership has its Privileges

by Bruce MacDonald

Both *Sky and Telescope* and *Astronomy* magazines offer discounted subscriptions to members of astronomy related clubs. In both cases, a minimum number of members must participate in order to take advantage of the discount.

Currently, there quite a few Vancouver Centre members who subscribe to *Sky and Telescope* through the club, however none, as yet, subscribe to *Astronomy*. If you are interested in subscribing to either magazine, read on.

Members wishing to take advantage of club discounts must submit their new membership applications or renewals through the club. To help keep paperwork to a minimum, the Vancouver Centre

continued on page 7

## President's Message

The last two months have given us a few glimpses of the night sky from Vancouver! Suzanna Nagy invited us down for sidewalk astronomy at the GMSO the two clear Fridays in February. In addition to member scopes, we were able to get the club's 8" Celestron up and running. The C-8 has great optics presenting very clear images of M42. Bob Parry remarked that seeing the moon through my Meade 104 was probably the sharpest image he has seen of it. All from downtown Vancouver!

Of special note in February is the addition to council of David Dodge, formerly the Astronomer and public face of the H. R. MacMillan Space Centre. David, also a former President of RASC-vc, has kindly agreed to sit as Director of Public Affairs. He is a very welcome addition to council!

Also of very special note, we would like to recognize and offer a warm congratulations to RASC Member, Dr. Jaymie Matthews, who was appointed a Member of the Order of Canada early this year!

We've had some very interesting speakers in this first part of the year. We learned about the challenges and rewards that Craig Breckenridge tells us are possible when you build your very own go-to scope. We also heard from Jason Rowe from UBC on work that the MOST project is doing to discover atmospheres around planetary ob-

continued on page 4

## 2007 Vancouver Centre Officers

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## About RASC

The Vancouver Centre, RASC meets at 7:30 PM in the auditorium of the H.R. MacMillan Space Centre at 1100 Chestnut St., Vancouver, on the second Thursday of every month. Guests are always welcome. In addition, the Centre has an observing site where star parties are regularly scheduled.

Membership is currently \$58.00 per year (\$34.25 for persons under 21 years of age) and can be obtained by writing to the Treasurer at the address on page 5. Annual membership includes the invaluable Observer's Handbook, six issues of the RASC Journal, and, of course, access to all of the club events and projects.

For more information regarding the Centre and its activities, please contact our P.R. Director.

NOVA, the newsletter of the Vancouver Centre, RASC, is published on odd numbered months. Opinions expressed herein are not necessarily those of the Vancouver Centre.

Material on any aspect of astronomy should be e-mailed to the editor or mailed to the address on page 5.

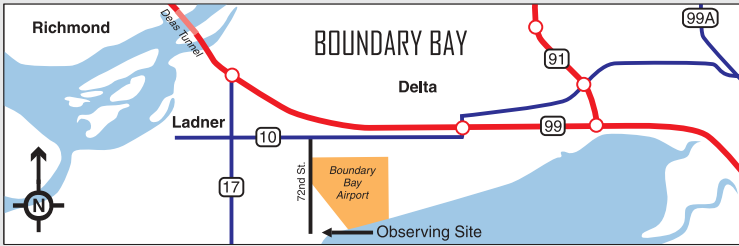
## Advertising

Nova encourages free use of its classified ads for members with items for sale or swap. Notify the editor if you wish your ad to run in more than one issue.

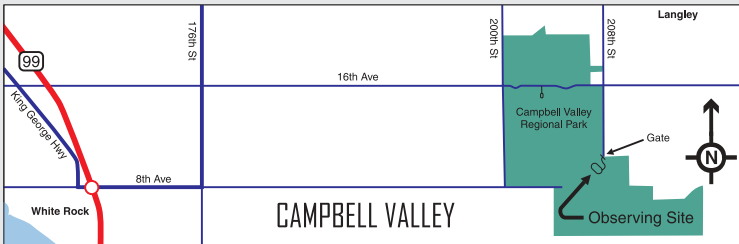
## Commerical Rates

1/4 Page: \$15.00 per issue  
1/2 Page: \$25.00 per issue  
Full Page: \$40.00 per issue  
Rates are for electronic or camera-ready files. Payment, by cheque, must accompany ad material. Make cheque payable to:  
RASC Vancouver Centre.

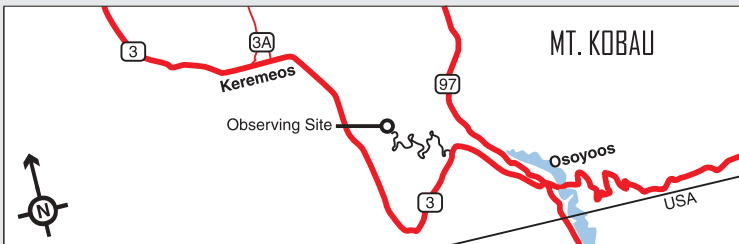
# OBSERVING SITES



Site of the regular Saturday night star party. On the dike at the foot of 72nd St.



Our alternate observing site. Contact Bruce MacDonald (604-882-3820) to see if this site is in use.



Site of the annual Mt. Kobau Star Party organized by the Mount Kobau Astronomical Society

continued from page 3  
jects outside our solar system. John Chapman is speaking to us in March on Mining on the Moon.

April promises to be a busy month with a Member meeting talk by Dr. Dennis Danielson, entitled "Rheticus, the First Copernican: How a man who loved stars and triangles launched modern astronomy." This talk sketches the colourful life and achievements of the man who first brought the Copernican cosmos to the attention of the world and launched the pub-

lication from which we date the Scientific Revolution. I am reading Dr. Danielson's book, *the book of the cosmos – Imagining the Universe from Heraclitus to Hawking*, a fascinating compendium of what we know of the universe.

Also, **April 21, 2007 will be a celebration of International Astronomy Day. Join us at the H. R. MacMillan Space Centre**, where we will have short member talks during the day and a keynote speaker, NASA planetary scientist

David McKay, who will join us to talk about the case for life on Mars. Bring your friends and family down for some hot chocolate and snacks and enjoy the day. Check our website for more programme information.

If weather permits, we will be holding **two Messier Marathons at Boundary Bay (March 17 & April 14)** for a chance to capture all 110 objects! Doug Montgomery will be coordinating the events and will have check off

continued on page 5

continued from page 4

lists on hand. Bring your telescope down or just show up and check out objects in the scopes that will be down there. It's always a fun evening, but make sure that you wear some warm clothing and foot gear as it can get pretty chilly late at night!

In closing, I wish to honour the memory of John Dickenson, who was an avid promoter of astronomy and the RASC as former director of the H. R. MacMillan Space Centre. John passed away on February 5<sup>th</sup>, 2007 at his care home on Salt Spring Island. John succumbed to a rare form of Alzheimer's at 63 years of age, just as he was beginning to enjoy his early retirement. Condolences were extended to his wife Joan, on behalf of the RASC – Vancouver Centre.

Best wishes,  
Pomponia ✨

## LIBRARY

The centre has a large library of books, magazines and old NOVA's for your enjoyment at the GSO. Please take advantage of this club service and visit often to check out the new purchases. Suggestions for future library acquisitions are appreciated.

### **RASC-VC on the Internet**

<http://www.pcis.com/rascvan/> or

<http://www.rasc.ca/vancouver>

## **H. R. MACMILLAN SPACE CENTRE**

The Pacific Space Centre Society is a non-profit organization which operates the H.R. MacMillan Space Centre and Gordon M. Southam Observatory. Annual Membership (\$30 Individual, \$80 Family) includes a newsletter, discounts on Space Camps, special programs and lectures, Vancouver Museum discounts, and free admission to the Space Centre. Admission to the Space Centre includes: Astronomy shows, Motion Simulator rides, multimedia shows in GroundStation Canada, and access to the Cosmic Courtyard Exhibit Gallery. For Membership information, call Mahi Jordao at 604-738-7827, local 237 for information. You can also reach them on the Internet at <http://www.hrmacmillanspacecentre.com/>

## MEMBERSHIP HAS ITS PRIVILEGES!

New members, did you know? The Vancouver Centre has 8 telescopes available for loan free of charge! We have telescopes ranging from 60mm to 10" diameter. For more information see Bob Parry, Director of Telescopes in the meeting room of the GSO after the members meeting. All telescopes are to be picked up and returned at the GSO. The loaner period is for one month, to be returned after the next meeting. Telescopes are not allowed to circulate outside of these meetings. You can now reserve two different telescopes per year and use what is left at the end of the meeting anytime. Wayne can be reached at 604-467-2956.

Your greatest opportunity as a member of the R.A.S.C. is to take advantage of the company of other enthusiasts to increase your knowledge, enjoyment and skill in astronomy.

The best thing you can do to gain the most from your membership is to get active! Take in the club meetings; engage other members with questions; come out to observing sessions (also known as "star parties"), and, by all means, volunteer to take part in our many public events.

Observing takes place at Boundary Bay on the dike at the south end of 72nd St. in Delta (see map on p. 4). We are there most clear Friday/Saturday nights. Contact Jason Rickerby at 604-502-8158.

**RASC  
1100 Chestnut Street  
Vancouver, B.C.  
V6J 3J9  
604-738-2855**

## March

17 – Messier Marathon I at Boundary Bay

## April

14 – Messier Marathon II at Boundary Bay

16-22 – International Astronomy Week

21 – Astronomy Day

## May

26 – Sidewalk Astronomy at David Lam Park in Yaletown

## June

18-22 – Astronomy Roundup (GA 2006) in Calgary

23 – CARO tour

## August

11 – Perseid meteor shower  
11-19 – Mt. Kobau Star Party

## September

22 – Sidewalk Astronomy at the Inukshuk at Sunset Beach

## December

13 – AGM

continued from page 1

out a number of Messier Objects with my naked eye, a treat that I was happy to share. My Spanish was not good enough to share all that I wanted and that was one of my frustrations. I did learn the names for various stages of the moon from the lady of the house (Mama Tica) and kept adding new words to my working list whenever possible.

The telescope had been a must for the trip, although there were times when we were travelling that the extra baggage seemed a burden. The two two-week periods when we stayed put and attended classes enabled me to leave my tripod assembled, so all I needed was a clear sky.

In La Fortuna where we spent our first two weeks, we experienced intermittent clouds and some rain. The town is situated near an active volcano and a major cloud forest, so I had to make due with a number of peek-a-boo observing evenings. I did manage to show the winter sky to our host family there. Their four-year-old daughter and I became fast friends.

I was able to speak Spanish at her level and she took a liking to my red flash light, which I let her carry about. While I didn't think she could harm it, I hadn't reckoned on her taking it apart. Alas, I was not able to find all the pieces so, thereafter, I had to resort to a small white light.

The husband of one of the school administrators was also interested in astronomy and he kept me supplied with newspaper articles concerning astronomical events. Comet McNaught put in an appearance while I was in Costa Rica, but I did not look for it initially because of weather and then, with school and the other activities, I forgot about it!

One spot where the sky was especially good was in a high mountain valley about five hours south of the capital city of San Jose, at the very remote Trogon Lodge, named for a bird of spectacular plumage found in the area. The light pollution was almost negligible and the Milky Way begins spilling across the field of view shortly after sunset. The only other place where I have seen such

a sky was on a summer evening in the hills near Canmore, Alberta. My only problem was a lack of sufficiently warm clothes so I could stand out under the sky for more than twenty minutes. At night the temperatures fell to near freezing.

There is an observatory in Costa Rica, although I did not have the opportunity to visit it. Additionally, there are organized observing trips to the country and apparently specific locations set up to accommodate astronomy. This may be of interest when the lovely Vancouver ("Bancouber") fall turns to winter. The birds and animals are many and varied and the country is really a collection of wonderfully diverse microclimates straddling the cordillera that separates Atlantic from Pacific. For those looking for a very user-friendly escape, the county has a lot to recommend it—climate, people, food and las estrellas (the stars). ★

With the current successes of the CGRT Group we are also looking for RASC-VC members to operate the CAROp observatory.

The observatory is located in the UBC Malcolm Knapp Research Forest in Maple Ridge and the dome is controlled with Digital Dome Works.

Equipment:

- Meade 16" - LX200 fork mount
- Camera: FLI CM-9 KAF-0261E: 512 x 512 / 20um pixels

Computer Software:

- The Sky Six
- MaxIm DL

There is already a small group of members that have helped to keep this observatory functioning. Any RASC-Vancouver Centre members wishing to be actively involved in using the equipment are expected to participate in the following:

- Complete 15 hours training in the operation of the observatory. This will include completing an operational checklist at each session.
- Volunteer time with the maintenance and training at the observatory. Attend at least

one work party a year at the observatory. (Work parties are to clean up the inside and outside areas of the site. We have permission to clear a 20-metre perimeter around the observatory)

- Volunteer with RASC-Vancouver Centre's public outreach activities such as the operation of the Gordon MacMillan Southam Observatory, Astronomy Day, or any of the Sidewalk Astronomy Sessions planned by the Centre.
- Qualified members will be expected to be available to help train other RASC-Vancouver Centre members in the operation of the observatory.

Qualified members will be able to submit observing projects and make use of the observatory on a scheduled basis.

At this time there is a group of four members working at the observatory and I am expecting them to be capable of using the equipment by this June if all goes well.

The observatory will accommodate four people

comfortably and I would like to have that number present at our training sessions. We do meet once a week when the sky is clear to continue training. Since not all members can attend at the last moment I will be contacting any members that have expressed interest in operating the telescope at the first opportunity.

At this time the observatory schedule is booked for the training of the observers group.

The Physics Department at Simon Fraser University is currently in the feasibility and planning stages of having an observatory located on Burnaby Mountain. RASC-Vancouver Centre Council will be working toward a closer relationship with the university to have both the CAROp and the CGRT telescopes located on campus.

Current members of RASC-Vancouver Centre are welcome to attend any observing sessions and those interested in being part of the CAROp Observers Group may contact:

Wayne Lyons,  
Chairperson, CAROp  
Tel: 604-467-2956 \*

continued from page 2  
submits the applications and funds twice a year, in May and October.

The cost for *Sky and Telescope* is \$48.00, and for *Astronomy* \$57.00, both quoted in Canadian Funds. This cost does fluctuate slightly from time to time

due to exchange rates. *Astronomy* also offers a two-year deal for \$103.00

The procedure in both cases is the same. Simply bring your subscription information and payment to the treasurer after any regular monthly meeting, bearing in mind

that subscriptions are only submitted in May and October. Cheques should be made payable to the Centre.

If you're unable to attend a meeting please contact me by email to make arrangements. \*

Proud To Serve Vancouver's Astronomical Community



# Vancouver Telescope Centre

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